



# INFOMAT

JANUAR 2021

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## Poster Challenge

<https://www.idm314.org/2021-poster-challenge.html>

## Mathematics for a Better World

<https://betterworld.idm314.org/>

## Get together on March 14

<https://www.idm314.org/organize.html>

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INFOMAT kommer ut med 11 nummer i året og gis ut av Norsk Matematisk Forening. Deadline for neste utgave er alltid den 15. i neste måned. Stoff til INFOMAT sendes til

**arnebs at math.uio.no**

Foreningen har hjemmeside <http://www.matematikkforeningen.no/>  
Ansvarlig redaktør er Arne B. Sletsjøe, Universitetet i Oslo

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# Matematisk kalender

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På grunn av den pågående pandemien kan flere av arrangementene bli utsatt eller avlyst. Følg med på web-sidene.

## Mars:

**17.. Abelprisen 2021, annonsering, DNVA**

<<http://www.abelprisen.no/>>

## Mai:

**24.-26.. Abelpris-uka 2021, DNVA/UiO**

<<http://www.abelprisen.no/>>

## Juni:

**7.-11.MEGA (effective methods in algebraic geometry), Tromsø**

<<https://puremath.no/mega2021/>>

**20.-26.. The 8th European Congress of Mathematics (8ECM), Portorož, Slovenia and Online** <<https://www.8ecm.si/news/79>>

**27.-3. juli. Seminar Sophus Lie,**

Nordfjordeid <<https://www.mathematik.uni-marburg.de/agricola/SSL2021/>>

**Nasjonalt matematikermøte, Trondheim**  
[UTSATT TIL SOMMEREN 2021]

<<https://www.ntnu.no/imf/matematikermote>>

## September:

**27.-28. Mathematics without Borders, IMU 100 år, Strasbourg**

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## MEGA, Tromsø, 7.-11. juni 2021

MEGA is the acronym for Effective Methods in Algebraic Geometry. This series of biennial international conferences, with the tradition dating back to 1990, is devoted to computational and application aspects of Algebraic Geometry and related topics, over any characteristics.

Plenary speakers:

**Alicia Dickenstein**, Universidad de Buenos Aires

**Ana Romero Ibañez**, Universidad de La Rioja

**Gleb Pogudin**, École Polytechnique

**Greg Smith**, Queen's University

**Gretchen L. Matthews**, Virginia Tech

**Gunnar Fløystad**, Universitetet i Bergen

**Kathlén Kohn**, KTH

**Karin Baur**, University of Leeds

**Mohab Safey El Din**, Sorbonne Universités

**Ragni Piene**, Universitetet i Oslo



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## SEMINAR SOPHUS LIE, Nordfjordeid, 27.juni -3. juli 2021



Dear Colleagues.

We are hoping for a good summer 2021, and a possibility for traditional meetings. The Seminar Sophus Lie is no exception. The next meeting of this seminar is June 27 - July 3, 2021, at Nordfjordeid. Recall that Sophus Lie was a famous Norwegian mathematician affiliated for an essential part of his career in Leipzig. It is not a surprise that Seminar Sophus Lie, a biannual meeting of mathematicians, was organized by German colleagues. It is however for the first time that the seminar comes to the Norwegian soil. The venue of the seminar will be the birthplace of Sophus Lie.

The conference center at Norfjordeid allows for meetings with at least 50 participants (with pandemic restrictions, but once these are done the number can be increased). Local expenses will be covered, there are also limited resources to help with travel expenses. Information on the Sophus Lie Conference Center can be found on the conference web page: <https://www.mathematik.uni-marburg.de/agricola/SSL2021/>.

Lie theory has a wide range of applications in different branches of mathematics, and we encourage the Norwegian colleagues to participate in this event. We will try to keep the meeting broad. Therefore we ask everybody who is interested in attending the meeting to send us a noncommittal email saying so. Please use the address: [Irina.Markina@math.uib.no](mailto:Irina.Markina@math.uib.no). This will help us to make sure we use the facilities in an optimal way. We also want to give young researchers a chance meet other mathematicians in person and to present/discuss their work.

Sincerely yours.

Boris Kruglikov and Irina Markina.

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## Nye doktorgrader

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**Alice Petronella Hedenlund** ved UiO forsvarte 20. januar 2021 sin avhandling *Multiplicative Tate Spectral Sequences* for graden PhD. Veiledere har vært Professor John Rognes og Professor Paul Arne Østvær, begge UiO.

### **Sammendrag:**

Many important results in mathematics deal with the question of figuring out what objects are *the same*. One way of rigorously dealing with this is through the notion of isomorphic objects. However, it is sometimes better to consider a weaker form of *sameness*, known as homotopy equivalence, which allow for more flexibility. Although homotopy theory is historically intertwined with fields of mathematics that appeal to our spatial imagination, the concept of a homotopy appears under various guises in other areas as well, and homotopy theoretical generalisations of classical algebra have recently had an upswing in popularity. The papers included in this thesis deal with spectral sequences, which can roughly be understood as computational tools that are able to process large amounts of homotopical information. In particular, this thesis deals with various constructions of the Tate spectral sequence, which is a spectral sequence giving us information on the so-called Tate construction. In my thesis, I construct multiplicative Tate spectral sequences in a larger generality

than what was known before. This is motivated by the study of an invariant in homotopical algebra known as topological Hochschild homology, which has been shown to have important connections to arithmetic questions.

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## Nyheter

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### **HAAKON WADELAND (1927-2020)**



Professor emeritus Haakon Waadeland sovnet stille inn første juledag 2020, 93 år gammel. I 45 år var han tilsatt ved ulike institusjoner som alle i dag tilhører NTNU, fra 1965 til 1997 som professor i matematikk.

Det meste av tiden, før NTNU ble opprettet, var han tilknyttet Den allmennvitenskapelige høyskolen (AVH). I løpet av sin yrkeskarriere hadde han flere lengre forskningsopphold i Tyskland og USA. Han var aktiv med matematikk og kom daglig til instituttet lenge etter at han fratradte ved fylte 70 år.

Haakon gjorde en stor innsats for å utvikle universitetsmatematikken i Trondheim, blant annet gjennom å få opprettet hovedfagsstudier i matematikk. Det ble skrevet mange hovedoppgaver og noen doktorgradsarbeider under Haakons veiledning. Hans studenter vil huske ham for hans entusiastiske og ofte uortodokse måter å tilnærme seg både undervisning og veiledning.

Haakon hadde en omfattende forskningsaktivitet innen kompleks funksjonsteori, særlig knyttet til analytisk teori for kjedebrøker. Hans forskning var preget av stor kreativitet, og han var opphav til mange originale ideer, som han villig delte med andre. Han har publisert langt over 100 vitenskapelige arbeider, og han hadde en rekke samarbeidspartnere fra mange ulike land.

Haakon var ivrig etter å prøve nytt og begynte tidlig å bruke datamaskin til eksperimenter i sin

forskning. Også i undervisningen gikk han nye veier. Alt på 1980-tallet var han med på ulike forsøk med bruk av datamaskin i undervisningen, både som hjelpemidler i matematikk, og mer allment som hjelpemidler for kommunikasjon i fjer- undervisning.

Det er mange, både kolleger og studenter, som har mye å takke Haakon Waadeland for. Våre tanker går til hans kjære familie.

På vegne av kolleger ved Institutt for matematiske fag, NTNU, Einar Rønquist.



In 2021 the theme of the IDM is Mathematics for a Better World. Create a poster that shows one way to make the world a little bit better using mathematics. Instead of words, use pictures combined with numbers, formulas, geometric shapes, and other mathematical elements to express your idea. Use mathematics so people worldwide can understand it, even if they don't speak your language.

Everyone can participate. Share the challenge in your school or university. Team up!

### You have extra time to join our challenge

Our Poster Challenge invites you to communicate an idea to make the world a little bit better by using mathematics as a universal language. The guidelines, tips, and examples are now available in Spanish, and six other languages (Arabic, English, French, German, Portuguese, and Turkish), so we decided to provide some extra time for the new participants.

You can submit your poster until **March 1, 2021**, see:

<https://www.idm314.org/2021-poster-challenge.html>

### Discover our 2021 theme

We prepared a mini-website dedicated to the 2021 theme: Mathematics for a Better World. Explore it, share it, and discover some ways in which mathematics improves the world.

<https://betterworld.idm314.org/>

### Get together on March 14

This year many IDM events will take place online. Connect with your classroom, colleagues, friends, or fellow math lovers and celebrate mathematics together. Have a day of mathematical games and puzzles, prepare a talk, or take a look at our activity ideas.

<https://www.idm314.org/organize.html>

Once your plans are set, put your event on our map and let the world know!

<https://www.idm314.org/index.html#event-map>

### THE 8th EUROPEAN CONGRESS OF MATHEMATICS (8ECM), 20 - 26 June 2021 in Portorož, Slovenia and online

- Abstract submission: The deadline for submissions is 1 May 2021.

For more information visit:

<https://www.8ecm.si/news/79>

- Registration: Additional options for attending the 8ECM are enabled! One of the innovations at the 8ECM next year is an online streaming format, with the possibility for full and active E-participation, besides the regular format of the conference. Reduced registration fees for different options of E-participation are available, including Active Full E-participation, Passive Full E-participation and Passive E-participation for main talks. For more information on options and prices see: <https://www.8ecm.si/news/77>

- Calls to organize a Minisymposium (MS) and/or a Satellite Conference (SC) These calls are still open! There are over 60 accepted MS so far and incentives for MS and SC organizers are offered. The deadline for applications is 31 January 2021. To find out more about the calls and to apply, see: <<https://www.8ecm.si/open-calls/call-for-minisymposia>> for Minisymposia and <<https://www.8ecm.si/open-calls/call-for-satellite-conferences>> for Satellite Conferences.